

#8
 Jéhanne Souaya
 March 22, 2001
 1655

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/423,126

DATE: 02/16/2001

TIME: 10:31:56

Input Set : A:\Sequence Listing.txt
 Output Set: N:\CRF3\02162001\I423126.raw

ENTERED

3 <110> APPLICANT: Buchter-Larsen, et al.
 5 <120> TITLE OF INVENTION: A PROCESS OF PREPARING AN ANTI-OXIDANT
 7 <130> FILE REFERENCE: 674509-2020
 9 <140> CURRENT APPLICATION NUMBER: 09/423,126
 10 <141> CURRENT FILING DATE: 1999-11-05
 12 <150> PRIOR APPLICATION NUMBER: PCT/IB98/00708
 13 <151> PRIOR FILING DATE: 1998-05-06
 15 <150> PRIOR APPLICATION NUMBER: GB 9709161.5
 16 <151> PRIOR FILING DATE: 1997-05-06
 18 <160> NUMBER OF SEQ ID NOS: 12
 20 <170> SOFTWARE: PatentIn version 3.0
 22 <210> SEQ ID NO: 1
 23 <211> LENGTH: 1088
 24 <212> TYPE: PRT
 25 <213> ORGANISM: Unknown
 27 <220> FEATURE:
 28 <223> OTHER INFORMATION: fungus sp. or fungus infected gracilariopsis sp.
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 33 1 5 10 15
 35 Thr Phe Val Gly Ala Glu Val Arg Ser Asn Val Arg Ile His Ser Ala
 36 20 25 30
 38 Phe Pro Ala Val His Thr Ala Thr Arg Lys Thr Asn Arg Leu Asn Val
 39 35 40 45
 41 Ser Met Thr Ala Leu Ser Asp Lys Gln Thr Ala Thr Ala Gly Ser Thr
 42 50 55 60
 44 Asp Asn Pro Asp Gly Ile Asp Tyr Lys Thr Tyr Asp Tyr Val Gly Val
 45 65 70 75 80
 47 Trp Gly Phe Ser Pro Leu Ser Asn Thr Asn Trp Phe Ala Ala Gly Ser
 48 85 90 95
 50 Ser Thr Pro Gly Gly Ile Thr Asp Trp Thr Ala Thr Met Asn Val Asn
 51 100 105 110
 53 Phe Asp Arg Ile Asp Asn Pro Ser Ile Thr Val Gln His Pro Val Gln
 54 115 120 125
 56 Val Gln Val Thr Ser Tyr Asn Asn Ser Tyr Arg Val Arg Phe Asn
 57 130 135 140
 59 Pro Asp Gly Pro Ile Arg Asp Val Thr Arg Gly Pro Ile Leu Lys Gln
 60 145 150 155 160
 62 Gln Leu Asp Trp Ile Arg Thr Gln Glu Leu Ser Glu Gly Cys Asp Pro
 63 165 170 175
 65 Gly Met Thr Phe Thr Ser Glu Gly Phe Leu Thr Phe Glu Thr Lys Asp
 66 180 185 190
 68 Leu Ser Val Ile Ile Tyr Gly Asn Phe Lys Thr Arg Val Thr Arg Lys
 69 195 200 205
 71 Ser Asp Gly Lys Val Ile Met Glu Asn Asp Glu Val Gly Thr Ala Ser
 72 210 215 220
 74 Ser Gly Asn Lys Cys Arg Gly Leu Met Phe Val Asp Arg Leu Tyr Gly

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77	Asn Ala Ile Ala Ser Val Asn Lys Asn Phe Arg Asn Asp Ala Val Lys			
78	245	250	255	
80	Gln Glu Gly Phe Tyr Gly Ala Gly Glu Val Asn Cys Lys Tyr Gln Asp			
81	260	265	270	
83	Thr Tyr Ile Leu Glu Arg Thr Gly Ile Ala Met Thr Asn Tyr Asn Tyr			
84	275	280	285	
86	Asp Asn Leu Asn Tyr Asn Gln Trp Asp Leu Arg Pro Pro His His Asp			
87	290	295	300	
89	Gly Ala Leu Asn Pro Asp Tyr Tyr Ile Pro Met Tyr Tyr Ala Ala Pro			
90	305	310	315	320
92	Trp Leu Ile Val Asn Gly Cys Ala Gly Thr Ser Glu Gln Tyr Ser Tyr			
93	325	330	335	
95	Gly Trp Phe Met Asp Asn Val Ser Gln Ser Tyr Met Asn Thr Gly Asp			
96	340	345	350	
98	Thr Thr Trp Asn Ser Gly Gln Glu Asp Leu Ala Tyr Met Gly Ala Gln			
99	355	360	365	
101	Tyr Gly Pro Phe Asp Gln His Phe Val Tyr Gly Ala Gly Gly Gly Met			
102	370	375	380	
104	Glu Cys Val Val Thr Ala Phe Ser Leu Leu Gln Gly Lys Glu Phe Glu			
105	385	390	395	400
107	Asn Gln Val Leu Asn Lys Arg Ser Val Met Pro Pro Lys Tyr Val Phe			
108	405	410	415	
110	Gly Phe Phe Gln Gly Val Phe Gly Thr Ser Ser Leu Leu Arg Ala His			
111	420	425	430	
113	Met Pro Ala Gly Glu Asn Asn Ile Ser Val Glu Glu Ile Val Glu Gly			
114	435	440	445	
116	Tyr Gln Asn Asn Asn Phe Pro Phe Glu Gly Leu Ala Val Asp Val Asp			
117	450	455	460	
119	Met Gln Asp Asn Leu Arg Val Phe Thr Thr Lys Gly Glu Phe Trp Thr			
120	465	470	475	480
122	Ala Asn Arg Val Gly Thr Gly Asp Pro Asn Asn Arg Ser Val Phe			
123	485	490	495	
125	Glu Trp Ala His Asp Lys Gly Leu Val Cys Gln Thr Asn Ile Thr Cys			
126	500	505	510	
128	Phe Leu Arg Asn Asp Asn Glu Gly Gln Asp Tyr Glu Val Asn Gln Thr			
129	515	520	525	
131	Leu Arg Glu Arg Gln Leu Tyr Thr Lys Asn Asp Ser Leu Thr Gly Thr			
132	530	535	540	
134	Asp Phe Gly Met Thr Asp Asp Gly Pro Ser Asp Ala Tyr Ile Gly His			
135	545	550	555	560
137	Leu Asp Tyr Gly Gly Val Glu Cys Asp Ala Leu Phe Pro Asp Trp			
138	565	570	575	
140	Gly Arg Pro Asp Val Ala Glu Trp Trp Gly Asn Asn Tyr Lys Lys Leu			
141	580	585	590	
143	Phe Ser Ile Gly Leu Asp Phe Val Trp Gln Asp Met Thr Val Pro Ala			
144	595	600	605	
146	Met Met Pro His Lys Ile Gly Asp Asp Ile Asn Val Lys Pro Asp Gly			
147	610	615	620	

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149 Asn Trp Pro Asn Ala Asp Asp Pro Ser Asn Gly Gln Tyr Asn Trp Lys
 150 625 630 635 640
 152 Thr Tyr His Pro Gln Val Leu Val Thr Asp Met Arg Tyr Glu Asn His
 153 645 650 655
 155 Gly Arg Glu Pro Met Val Thr Gln Arg Asn Ile His Ala Tyr Thr Leu
 156 660 665 670
 158 Cys Glu Ser Thr Arg Lys Glu Gly Ile Val Glu Asn Ala Asp Thr Leu
 159 675 680 685
 161 Thr Lys Phe Arg Arg Ser Tyr Ile Ile Ser Arg Gly Gly Tyr Ile Gly
 162 690 695 700
 164 Asn Gln His Phe Gly Gly Met Trp Val Gly Asp Asn Ser Thr Thr Ser
 165 705 710 715 720
 167 Asn Tyr Ile Gln Met Met Ile Ala Asn Asn Ile Asn Met Asn Met Ser
 168 725 730 735
 170 Cys Leu Pro Leu Val Gly Ser Asp Ile Gly Gly Phe Thr Ser Tyr Asp
 171 740 745 750
 173 Asn Glu Asn Gln Arg Thr Pro Cys Thr Gly Asp Leu Met Val Arg Tyr
 174 755 760 765
 176 Val Gln Ala Gly Cys Leu Leu Pro Trp Phe Arg Asn His Tyr Asp Arg
 177 770 775 780
 179 Trp Ile Glu Ser Lys Asp His Gly Lys Asp Tyr Gln Glu Leu Tyr Met
 180 785 790 795 800
 182 Tyr Pro Asn Glu Met Asp Thr Leu Arg Lys Phe Val Glu Phe Arg Tyr
 183 805 810 815
 185 Arg Trp Gln Glu Val Leu Tyr Thr Ala Met Tyr Gln Asn Ala Ala Phe
 186 820 825 830
 188 Gly Lys Pro Ile Ile Lys Ala Ala Ser Met Tyr Asn Asn Asp Ser Asn
 189 835 840 845
 191 Val Arg Arg Ala Gln Asn Asp His Phe Leu Leu Gly Gly His Asp Gly
 192 850 855 860
 194 Tyr Arg Ile Leu Cys Ala Pro Val Val Trp Glu Asn Ser Thr Glu Arg
 195 865 870 875 880
 197 Glu Leu Tyr Leu Pro Val Leu Thr Gln Trp Tyr Lys Phe Gly Pro Asp
 198 885 890 895
 200 Phe Asp Thr Lys Pro Leu Glu Gly Ala Met Asn Gly Gly Asp Arg Ile
 201 900 905 910
 203 Tyr Asn Tyr Pro Val Pro Gln Ser Glu Ser Pro Ile Phe Val Arg Glu
 204 915 920 925
 206 Gly Ala Ile Leu Pro Thr Arg Tyr Thr Leu Asn Gly Glu Asn Lys Ser
 207 930 935 940
 209 Leu Asn Thr Tyr Thr Asp Glu Asp Pro Leu Val Phe Glu Val Phe Pro
 210 945 950 955 960
 212 Leu Gly Asn Asn Arg Ala Asp Gly Met Cys Tyr Leu Asp Asp Gly Gly
 213 965 970 975
 215 Val Thr Thr Asn Ala Glu Asp Asn Gly Lys Phe Ser Val Val Lys Val
 216 980 985 990
 218 Ala Ala Glu Gln Asp Gly Gly Thr Glu Thr Ile Thr Phe Thr Asn Asp
 219 995 1000 1005
 221 Cys Tyr Glu Tyr Val Phe Gly Gly Pro Phe Tyr Val Arg Val Arg

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222      1010          1015          1020
224 Gly Ala Gln Ser Pro Ser Asn Ile His Val Ser Ser Gly Ala Gly
225      1025          1030          1035
227 Ser Gln Asp Met Lys Val Ser Ser Ala Thr Ser Arg Ala Ala Leu
228      1040          1045          1050
230 Phe Asn Asp Gly Glu Asn Gly Asp Phe Trp Val Asp Gln Glu Thr
231      1055          1060          1065
233 Asp Ser Leu Trp Leu Lys Leu Pro Asn Val Val Leu Pro Asp Ala
234      1070          1075          1080
236 Val Ile Thr Ile Thr
237      1085
239 <210> SEQ ID NO: 2
240 <211> LENGTH: 1091
241 <212> TYPE: PRT
242 <213> ORGANISM: Unknown
244 <220> FEATURE:
245 <223> OTHER INFORMATION: fungus sp. or fungus infected gracilaria sp.
247 <400> SEQUENCE: 2
249 Met Tyr Pro Thr Leu Thr Phe Val Ala Pro Ser Ala Leu Gly Ala Arg
250 1           5           10          15
252 Thr Phe Thr Cys Val Gly Ile Phe Arg Ser His Ile Leu Ile His Ser
253      20          25          30
255 Val Val Pro Ala Val Arg Leu Ala Val Arg Lys Ser Asn Arg Leu Asn
256      35          40          45
258 Val Ser Met Ser Ala Leu Phe Asp Lys Pro Thr Ala Val Thr Gly Gly
259      50          55          60
261 Lys Asp Asn Pro Asp Asn Ile Asn Tyr Thr Thr Tyr Asp Tyr Val Pro
262 65           70          75          80
264 Val Trp Arg Phe Asp Pro Leu Ser Asn Thr Asn Trp Phe Ala Ala Gly
265      85          90          95
267 Ser Ser Thr Pro Gly Asp Ile Asp Asp Trp Thr Ala Thr Met Asn Val
268      100         105         110
270 Asn Phe Asp Arg Ile Asp Asn Pro Ser Phe Thr Leu Glu Lys Pro Val
271      115         120         125
273 Gln Val Gln Val Thr Ser Tyr Lys Asn Asn Cys Phe Arg Val Arg Phe
274      130         135         140
276 Asn Pro Asp Gly Pro Ile Arg Asp Val Asp Arg Gly Pro Ile Leu Gln
277 145           150         155         160
279 Gln Gln Leu Asn Trp Ile Arg Lys Gln Glu Gln Ser Lys Gly Phe Asp
280      165         170         175
282 Pro Lys Met Gly Phe Thr Lys Glu Gly Phe Leu Lys Phe Glu Thr Lys
283      180         185         190
285 Asp Leu Asn Val Ile Ile Tyr Gly Asn Phe Lys Thr Arg Val Thr Arg
286      195         200         205
288 Lys Arg Asp Gly Lys Gly Ile Met Glu Asn Asn Glu Val Pro Ala Gly
289      210         215         220
291 Ser Leu Gly Asn Lys Cys Arg Gly Leu Met Phe Val Asp Arg Leu Tyr
292 225           230         235         240
294 Gly Thr Ala Ile Ala Ser Val Asn Glu Asn Tyr Arg Asn Asp Pro Asp

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295	245	250	255
297	Arg Lys Glu Gly Phe Tyr Gly Ala Gly Glu Val Asn Cys Glu Phe Trp		
298	260	265	270
300	Asp Ser Glu Gln Asn Arg Asn Lys Tyr Ile Leu Glu Arg Thr Gly Ile		
301	275	280	285
303	Ala Met Thr Asn Tyr Asn Tyr Asp Asn Tyr Asn Gln Ser Asp		
304	290	295	300
306	Leu Ile Ala Pro Gly Tyr Pro Ser Asp Pro Asn Phe Tyr Ile Pro Met		
307	305	310	315
309	Tyr Phe Ala Ala Pro Trp Val Val Val Lys Gly Cys Ser Gly Asn Ser		
310	325	330	335
312	Asp Glu Gln Tyr Ser Tyr Gly Trp Phe Met Asp Asn Val Ser Gln Thr		
313	340	345	350
315	Tyr Met Asn Thr Gly Gly Thr Ser Trp Asn Cys Gly Glu Glu Asn Leu		
316	355	360	365
318	Ala Tyr Met Gly Ala Gln Cys Gly Pro Phe Asp Gln His Phe Val Tyr		
319	370	375	380
321	Gly Asp Gly Asp Gly Leu Glu Asp Val Val Gln Ala Phe Ser Leu Leu		
322	385	390	395
324	Gln Gly Lys Glu Phe Glu Asn Gln Val Leu Asn Lys Arg Ala Val Met		
325	405	410	415
327	Pro Pro Lys Tyr Val Phe Gly Tyr Phe Gln Gly Val Phe Gly Ile Ala		
328	420	425	430
330	Ser Leu Leu Arg Glu Gln Arg Pro Glu Gly Gly Asn Asn Ile Ser Val		
331	435	440	445
333	Gln Glu Ile Val Glu Gly Tyr Gln Ser Asn Asn Phe Pro Leu Glu Gly		
334	450	455	460
336	Leu Ala Val Asp Val Asp Met Gln Gln Asp Leu Arg Val Phe Thr Thr		
337	465	470	475
339	Lys Ile Glu Phe Trp Thr Ala Asn Lys Val Gly Thr Gly Gly Asp Ser		
340	485	490	495
342	Asn Asn Lys Ser Val Phe Glu Trp Ala His Asp Lys Gly Leu Val Cys		
343	500	505	510
345	Gln Thr Asn Val Thr Cys Phe Leu Arg Asn Asp Asn Gly Gly Ala Asp		
346	515	520	525
348	Tyr Glu Val Asn Gln Thr Leu Arg Glu Lys Gly Leu Tyr Thr Lys Asn		
349	530	535	540
351	Asp Ser Leu Thr Asn Thr Asn Phe Gly Thr Thr Asn Asp Gly Pro Ser		
352	545	550	555
354	Asp Ala Tyr Ile Gly His Leu Asp Tyr Gly Gly Gly Asn Cys Asp		
355	565	570	575
357	Ala Leu Phe Pro Asp Trp Gly Arg Pro Gly Val Ala Glu Trp Trp Gly		
358	580	585	590
360	Asp Asn Tyr Ser Lys Leu Phe Lys Ile Gly Leu Asp Phe Val Trp Gln		
361	595	600	605
363	Asp Met Thr Val Pro Ala Met Met Pro His Lys Val Gly Asp Ala Val		
364	610	615	620
366	Asp Thr Arg Ser Pro Tyr Gly Trp Pro Asn Glu Asn Asp Pro Ser Asn		
367	625	630	635
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/423,126

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